GROUP III NITRIDE LASER DIODE AND ITS MANUFACTURING METHOD

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Inventor(s): ONIZUKA TAKESHI; KANAMARU HIROSHI
Applicant(s): FUJI ELECTRIC CO LTD
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Abstract

PROBLEM TO BE SOLVED: To provide a group III nitride laser diode with a cleavage plane as a light resonator surface, while using a sapphire substrate, and its manufacturing method.
SOLUTION: In a method for manufacturing a group III nitride laser diode, where a resonator surface is formed after group III nitride film made of AlxGayIn1-x-yN (0<=x, y, 0<=x+y<=1) is formed on a sapphire substrate with C surface as a substrate surface, the reverse side of a substrate 10 where a specific group III nitride film is laminated is polished and thinned, a scribe mark T is formed at the reverse side of the substrate in parallel with the crossing line between (1-100) surface that is the cleavage line of the group III nitride film and a substrate surface, and cutting is made along the scribe mark by a knife edge K, thus cleaving the group III nitride film to form a bar B2.